with the kinds of the state at which individual paths eventually arrive. FIG. 2 describes a state in which corresponding four values are individually stored in four domains including PMM (11), PMM (10), PMM (01), and PMM (00) inside of the path-metric memory 130. In other words, the value of the state S11 is stored in the domain PMM (11). Likewise, the value of the state S10 is stored in the domain PMM (10). The value of the state S01 is stored in the domain PMM (01), and the value of the state S00 is stored in the domain PMM (00).--

Please amend the paragraph at page 34, lines 19-27 to read as follows:

--In addition, the recording and reproducing apparatus based on the second embodiment of the present invention further includes the following: a spindle motor 11 for rotatably driving the magneto-optical disc 9, an optical system 10 which condenses and irradiates laser beams onto the signal-recording surface of the magneto-optical disc 9 and then receives reflected beams, an RF amplifier 33 which amplifies RF signal transmitted from the optical system 10, and a servo circuit 12 which applies servo operation to the optical system 10 and the spindle motor 11 based on the signal from the RF amplifier 33.--

REMARKS

The foregoing changes to the specification are intended to correct errors in translation, which are obvious in the context of the English text as filed. It is respectfully submitted that no new matter is added.

The corrections at pages 2 and 3 which change the word "encoding" (or "encode") to -- converting --, is intended to conform with the overall description in which the

reproduced signal, which is, of course, an analog signal, is compared to a threshold to determine if that reproduced signal is a binary "1" or "0". That is, the reproduced signal is "converted" to binary form. It will be appreciated that the corrections requested at pages 2 and 3 of the specification are intended merely to make the English translation more accurate.

The corrections at pages 21 and 22 merely conform the text in the specification to the notations a_k and y_k in Fig. 1 of the drawings. Also, the correction to the paragraph at page 22, lines 16-29 is intended to provide the inadvertently omitted ")".

The correction at page 34 is intended to provide the commonly accepted expression "magneto-optical" in place of the improper translation "opt-magnetic."

Finally, accompanying this Preliminary Amendment is a Request for Approval of Drawing Changes which adds to Fig. 5 the inadvertently omitted reference numeral 300 (see page 27, lines 26-29 of the specification).

Attached hereto, and identified as **Version with Markings to Show Changes Made**, is a marked up version of the changes made to the specification by this amendment.

Entry of the instant Preliminary Amendment is respectfully requested; and an early examination on the merits of this application is solicited.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

By _____

William S. Frommer
Reg. No. 25,506
Attorney for Applicants
(212) 588-0800

Version with Markings to Show Changes Made

IN THE SPECIFICATION

Please amend the paragraph at page 2, lines 18-27 as follows:

--On the other hand, in recent years, as a result of the development of technology related to LSI (large-scale integrated circuit), as a practical means for [encoding] converting reproduced signal into binary signal for the sake of achieving higher recording density, such a decoder using a method of maximum likelihood typically represented by a "Viterbi" decoder for example, has become easily available. When reproducing such data aligned in arrays and recorded by way of providing correlation between them, the decoder using the method of maximum likelihood [encodes] converts them into binary signal by way of detecting the most likely array.--

Please amend the paragraph at page 2, line 28 to page 3, line 6 as follows:

--Nevertheless, even when [encoding] converting the reproduced signal into binary signal by applying such a "maximum likelihood" decoder cited above, in many cases, conventional practice still utilizes jitter component to determine the value from evaluation of actual quality of the reproduced signal. When utilizing this method, correlation between the actually evaluated value and the actual error rate is reduced. As a result, even after adjusting the reproducing condition based on the jitter component, such a problem is often generated, for the reproducing condition deviates from such a condition allowing minimization of the error rate.--

Please amend the paragraph at page 3, lines 9-15 as follows:

--The present invention aims at providing an apparatus and a method of evaluation of reproducing signal, a reproduction apparatus and a reproduction method, and a recording apparatus and a method of recording reproduced signal, which are respectively capable of properly evaluating actual quality of reproduced signal at a faster rate when utilizing such a "maximum likelihood" decoder for [encoding] converting signal reproduced from a recording medium into binary signal.--

Please amend the paragraph at page 21, lines 24-31 as follows:

--FIG. 1 designates a trellis chart corresponding to a combination of the above-referred RLL (1,7) and PR (1,2,1). In FIG. 1, transition of state is expressed from a time "k" to a time "k+1". States S00, S01, S10, and S11, respectively correspond to such a state in which any of the states are determined by a combination of data corresponding to past two bits from the present moment. The value ["ak"] "a_k" designates binary data, whereas the value ["yk"] :"y_k" designates an ideally-reproduced signal.--

Please amend the paragraph at page 22, lines 9-14 as follows:

--Frequently, an actual "Viterbi" decoder applies as a metric, Euclidean distance "x(-1)" between an ideally-reproduced signal ["yk"] "y_k" and an actual reproduced signal "z_k". In other words, in order to define such a branch metric BM (y) against the level "y" of the ideally-reproduced signal, it is suggested that such an equation shown below be computed.--

Please amend the paragraph at page 22, lines 16-29 as follows:

--On the other hand, a path-metric memory 130 stores such a path on a trellis selected via a method to be described later on, in other words, the path-metric memory

130 stores cumulative values of such branch metric corresponding to the pattern of a data array. In other words, the path-metric memory 130 stores four values in correspondence with the kinds of the state at which individual paths eventually arrive. FIG. 2 describes a state in which corresponding four values are individually stored in four domains including PMM (11), PMM (10), PMM (01), and PMM (00) inside of the path-metric memory 130. In other words, the value of the state S11 is stored in the domain PMM (11). Likewise, the value of the state S10 is stored in the domain PMM (10). The value of the state S01 is stored in the domain PMM (01), and the value of the state S00 is stored in the domain PMM (00).--

Please amend the paragraph at page 34, lines 19-27 as follows:

--In addition, the recording and reproducing apparatus based on the second embodiment of the present invention further includes the following: a spindle motor 11 for rotatably driving the [opt-magnetic] magneto-optical disc 9, an optical system 10 [for] which condenses and irradiates laser beams onto the signal-recording surface of the magneto-optical disc 9 and then receives reflected beams, an RF amplifier 33 which amplifies RF signal transmitted from the optical system 10, and a servo circuit 12 which applies servo operation to the optical system 10 and the spindle motor 11 based on the signal from the RF amplifier 33.--